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ABSTRACT

In 1990, a study was conducted at San Joaquin Delta Community College (California) to determine the role that student ethnicity played in the educational process at the college. Specifically, the report examined whether the major ethnic groups were over- or under-represented in the student body, the extent to which students of different ethnicities were prepared to undertake college work, and the relationship between student ethnicity and three major educational choices and outcomes (i.e., selecting an educational goal, choosing a major, and obtaining a degree or certificate). Study findings included the following: (1) the percentages of White and Black students closely paralleled their respective proportions in the local population, while Asian students were over-represented by 42% and Hispanic students were under-represented by 60%; (2) minority students were less prepared than White students in basic reading and math skills; (3) White, Black, and Hispanic students tended to select social service majors, while Asian students more often enrolled in technical and scientific fields; (4) White students were above the school average in selecting liberal arts and transfer majors; and (5) the proportion of Asian students receiving degrees and certificates was above the school average, while Hispanics were substantially under-represented and White and Black students were proportionately represented. Study findings suggest that remedial programs will have to be expanded at the college in order to meet the increasing enrollment of educationally disadvantaged students. (JMC)

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RESEARCH REPORT

ED327239

Ethnicity: Its Role in Academic Choice and Outcome at Delta College

April 27, 1990

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April 27, 1990

OFFICE OF INSTITUTIONAL RESEARCH AND PLANNING

SAN JOAQUIN DELTA COLLEGE

ETHNICITY:

ITS ROLE IN ACADEMIC CHOICE AND OUTCOME

AT DELTA COLLEGE

John W. Evans, Ph.D.

Director of Institutional Research and Planning

EXECUTIVE SUMMARY

This report examines the role that student ethnicity plays in the educational process at Delta College:

- It details the extent to which the major ethnic groups are over- or under-represented in the student body.

- It compares how well students of different ethnicity are prepared to undertake college work.

- It analyzes the relationship between student ethnicity and the major educational choices and outcomes that constitute the educational process, specifically:

- >selecting an educational goal;
- >choosing a major; and
- >obtaining a degree or certificate.

The report's major findings are that:

- The proportions of white students and black students in the student population are almost identical to their respective proportions in the local population, but Asian students are substantially over-represented (by 42%), and Hispanic students are seriously under-represented (by 60%).
- Minority students are substantially less well prepared than white students in the basic reading skills needed for successful college work. On the reading placement test taken by most incoming students, Asian, black, and Hispanic students score significantly below white students, and most of the minority students score below the 15th percentile on the national norms for this test.
- Minority students are similarly disadvantaged in basic math skills. Although white students score somewhat higher, the margin of difference is less than in reading, and indicates that they, too, will face difficulty in dealing with college level technical subjects.
- A larger proportion of Asian students have as their educational goal obtaining a degree or certificate, but the differences among the four ethnic groups are not as great as might be expected.

- There are educationally important differences among the ethnic groups in their choice of majors. Asians tend to concentrate in the scientific and technical areas, and show less interest in the social sciences and human service occupations. The reverse is true for blacks and Hispanics. White students are above average in selecting the Liberal Arts/Transfer major, reflecting a greater orientation to obtaining a baccalaureate degree, but otherwise their choice of majors is closer to the social service pattern of black and Hispanic students than to the technical and scientific pattern of Asian students.
- It is difficult to establish what a proper graduation or completion rate should be for community colleges since a large proportion of community college students are not seeking a degree or certificate. But the percent of *all* Delta College students who ever receive a degree or certificate is very small--probably on the order of 5% to 10%, depending on how the calculation is made.
- Even when the analysis is limited to those students who say their educational goal is to get a degree or certificate, the proportion who do so, while much larger, is still probably less than 35%.
- Regardless of what graduation rate is judged to be appropriate, the data indicate that, as in the other phases of the educational process, the actual obtaining of degrees and certificates is tied to ethnicity. Similar to the pattern observed in most of the other comparisons, Asian students receive degrees and certificates substantially in excess of their numbers in the student population; Hispanics are substantially under-represented; and white students and black students fall in between.
- Rapidly increasing population and enrollment growth over the coming decade, along with a large increase in the proportion of minorities, will increase the number of educationally disadvantaged and ESL students. This means that community colleges in general and Delta College in particular will be facing greater educational challenges.
- These findings underscore the key importance of the Matriculation effort. Remediation programs will have to be expanded in order for the College to carry out its central mission of advancing equal educational opportunity in the fundamentally changed environment that the 21st century will bring.

Prefatory Note

This report grew out of what was originally intended to be some limited descriptive data prepared for Delta College's Student Affirmative Action Committee for its work during the Spring of 1990.

As so often happens in research, answers to initial questions provoke new questions and the search for data to answer them.

When all the data were collected and the analyses completed, together they formed a broad picture with new insights about the role ethnicity plays in the educational choices and outcomes of minority students at Delta College.

Accordingly, this larger report was prepared with the hope that it will not only be useful to the specific tasks of the Student Affirmative Action Committee, but will also help guide the College's broader policies and programs aimed at expanding opportunities and achievements for all of Delta's students.

John W. Evans, Ph. D.
Director of Institutional
Research and Planning

"The challenge facing American higher education is clear. Having opened its doors to substantial numbers of minorities, it must now find a way to provide them with a high quality education.

"How are we doing? Unfortunately, the answer must be: Not good enough. Progress toward full participation of minorities in higher education is distressingly stalled. There are large gaps which must be overcome, especially in academic preparation and retention to the higher levels on the education ladder.

"The improvement of academic preparation is the single greatest task facing both the schools and the colleges. This, by necessity, requires a far greater commitment to remediation at the collegiate level than is now willingly accepted."

--James R. Mingle, *Focus on Minorities*

ETHNICITY:
ITS ROLE IN ACADEMIC CHOICE AND OUTCOME
AT DELTA COLLEGE

I INTRODUCTION

Despite sweeping changes throughout American society, ethnicity remains a social fact of far reaching consequence.

It is true that since the 1954 Supreme Court ruling which outlawed school segregation, the ensuing three decades have seen renewed commitment at virtually all levels of American society to end discrimination and provide new opportunities for minorities.¹

Moreover, this change in national attitudes has been reflected concretely in a proliferation of Federal and state legislation to outlaw discrimination and support social programs for minorities and the disadvantaged.²

These actions have in turn produced changes in the indicators of real progress: minorities in America have registered substantial improvements in income, jobs, housing, and education.³

Nevertheless, change has been slow, and the gap remains wide. In California it is still the case that:

- A third of blacks and Hispanics live in poverty, compared to only 10% of whites.

¹See the trend data in the Gallup and Harris Polls which show major declines in anti-minority attitudes during this period. Additionally, discriminatory admission policies to educational and other institutions which were common practice as recently as the 1960's have become discredited and have largely disappeared, giving way to concerted programs of affirmative action.

²This began with the Federal Economic Opportunity Act (the Anti-Poverty Program) and Civil Rights legislation of the mid-sixties, and has since been expanded and replicated in other Federal and state statutes.

³See, for example, the improvements registered by minorities relative to whites in income and education shown in the Census Bureau's Current Population Surveys since 1950.

- The rate of low-weight babies born to black mothers is twice as high as that for whites.
- Nearly 80% of white children live with two parents, whereas this is true for less than half of black children.
- Fewer than 10% of white children have as their most educated parent a person with less than a high school education, but this is the case for half of California's Hispanic children.
- White families have a median income that is half again that of black families.
- 17 year old black and Hispanic students read only as well as 13 year old white students.
- The high school drop out rate of blacks and Hispanics is twice that of whites.
- The average SAT score for white students is 952, compared to 895 for Asians, 793 for Hispanics, and 747 for blacks.⁴

In short, we cannot escape the fact that, despite the efforts being made and the progress that has been achieved, ethnicity remains a major determiner of life chances.

II ETHNICITY AS AN EDUCATIONAL FACTOR AT DELTA COLLEGE

A. Representation

As we move from the larger society to the local situation, we need to look first at who does and does not come to Delta College. Specifically, we need to examine the comparative levels of representation the major ethnic groups have in the student body.

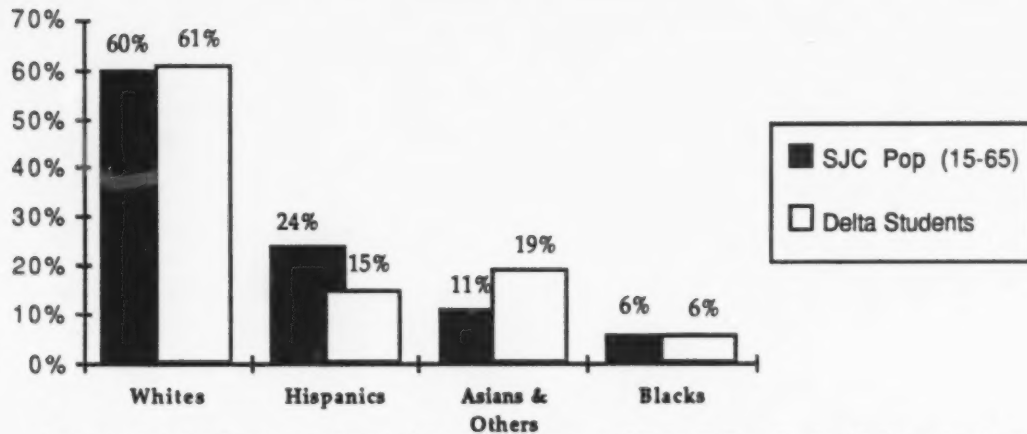
When we compare the percent that each ethnic group comprises of the Delta College student body with the parallel percent in the local population, the differences do not initially seem to be disturbingly large. (See Chart 1.)

The percentages of white students and black students at Delta are almost identical to their corresponding percents in the local college age population (ages 15-65); and the over-representation of Asians and the under-representation of blacks do not seem seriously out of line.

⁴For the detailed data on these and other white-minority comparisons, see *The Condition of Children in California*, PACE, University of California, Berkeley, CA, 1989, and the periodic reports of the National Assessment of Educational Progress (NAEP), Educational Testing Service, Princeton, N.J.

CHART 1

Ethnic Distribution of San Joaquin County Population (Ages 15
65) and Delta College Students, 1988-89



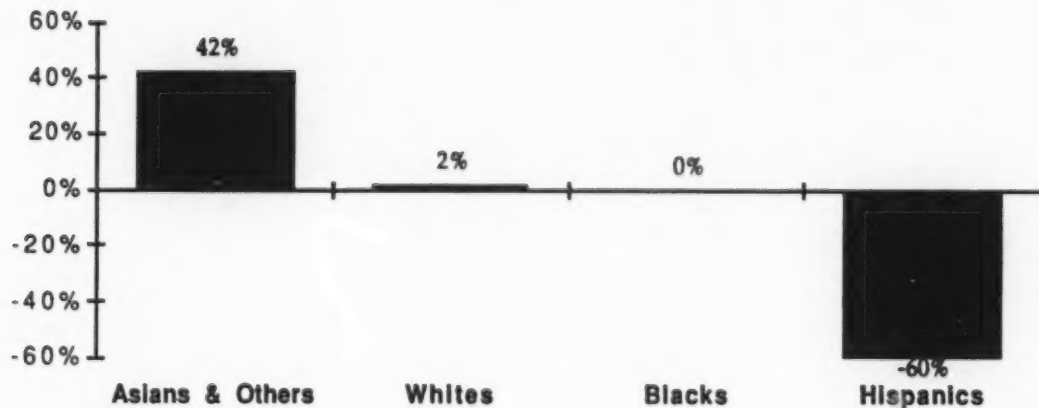
Sources: Cntr for Continuing Study of the Cal Economy, and Delta College Student Information System

Indeed, the overall level of representation is substantially better than what would be found in most public or private four-year institutions.

However, when the data are displayed in a proportional format, the picture

CHART 2

Over- or Under-Representation of Delta College Students
(Compared to the San Joaquin 15-65 Population), by Ethnic
Group, 1988-89



is less reassuring. Chart 2 displays the same data on comparative composition but in a way which shows more clearly the actual extent to which some groups are *proportionally* over- or under-represented.

The basic data in Chart 1 show that, in absolute terms, Hispanics are 15% of the student body compared to 24% of the local college age population. However, as shown in Chart 2, proportionally that means that Hispanics are under-represented by 60%. Stated differently, the number of Hispanic students at Delta would have to increase by more than half for the local Hispanic population to be fully represented in the student body.

On the other hand, Asian students comprise a 42% larger proportion of the student body than Asians do of the local college age population.

B. Entry Level Proficiency in the Basic Skills

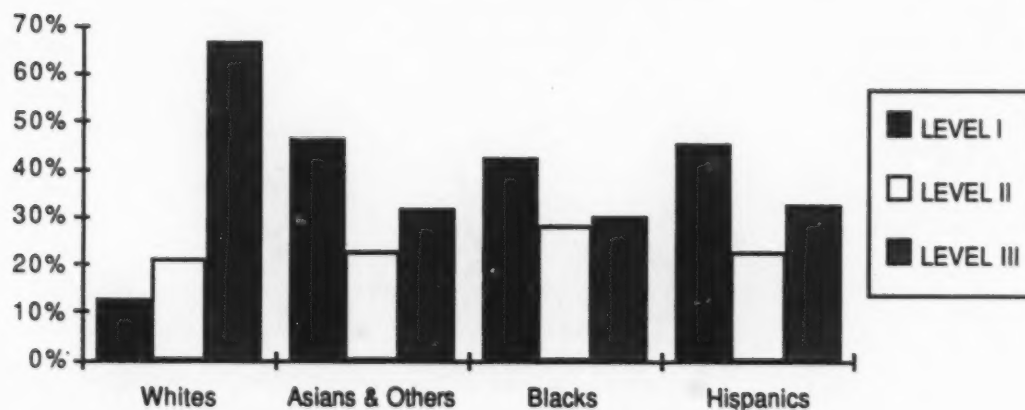
Immediately following the question of representation is the issue of preparedness: How well equipped are the ethnic minorities who do attend Delta to take up postsecondary studies and succeed?

The answer is, not very well.

B. 1. Reading Test Scores

Chart 3 presents the scores of incoming Delta students in the Fall of 1988 on the reading section of the Comparative Guidance and Placement Test.

CHART 3
Percent of Incoming Delta College Students Scoring at Reading Levels I, II, and III on the CGP, by Ethnic Group, Fall 88, N=2,005 (Does Not Include Those with SAT, ACT, etc. Scores)



The test scores are categorized into three levels: Level I, which roughly indicates a reading capability of less than 9th Grade; Level II, 9th to 11th Grade; and Level III, greater than 11th Grade.

While more than two-thirds of the white students score at Level III, only about a third of all three ethnic minority groups do so; and almost half of the students in all three minority groups score at Level I, the lowest or less than 9th grade level of proficiency.

On national norms, the range of scores which comprise Level I fall between the 1st and 14th percentiles. Level II scores fall between the 17th and 35th percentiles; and Level III scores range between the 36th and 99th percentiles. This means that, at entry, approximately half of the three minority groups (those scoring at Level I) are performing below the level achieved by 85% of community college students nationally.

Chart 4 displays the same data in average reading level scores (based on the I, II, III Level categories) for all ethnic groups. It again shows that the three minority groups have similar scores that are substantially below whites, and well below the level that is likely needed for successful college work.

CHART 4
Mean Reading Level of Incoming Delta College Students on the
CGP, Fall 1988, N=2,005 (Does Not Include Those With Level III
Scores From SAT, ACT, etc.)

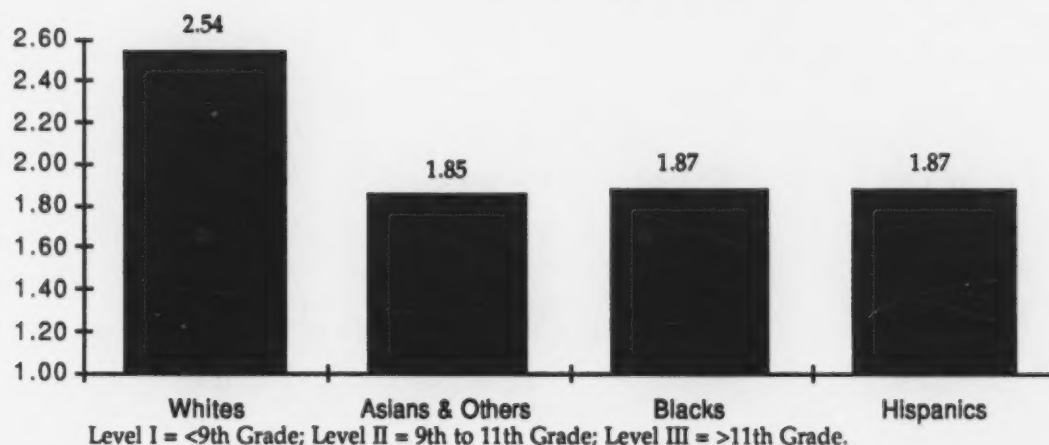
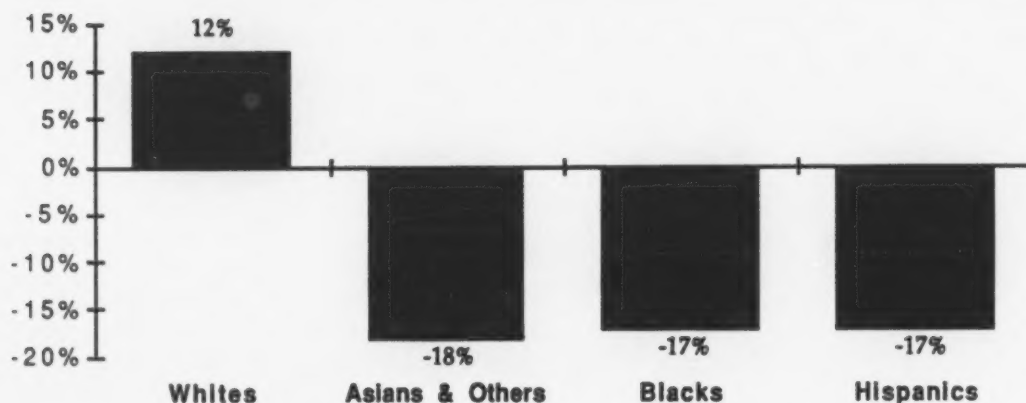


Chart 5 shows the percent that the different ethnic groups score above or below the college average reading score.

In sum, only about a third of all incoming minority students have the reading proficiency (Level III) to comfortably deal with college work. Most of the remainder score in the very low range of the reading test, and will need

CHART 5

Percent Ethnic Groups are Above or Below the College Average
Reading Score on the CGP (Incoming Students, Fall 88, N=2,005;
Does Not Include Those with Scores From SAT, ACT, etc.)



substantial remediation if they are to have a realistic chance to succeed.

The relative disadvantage of minorities to whites in reading is probably greater than indicated because these data do not include students who automatically receive a Level III rating from their scores on the SAT, ACT, or other outside tests. Although ethnic information is not available on these students, other data would suggest that they are disproportionately white. If scores on these students were included, the likely effect would be to increase the proportion of whites and decrease the proportion of minorities who receive Level III scores.

B. 2. Basic Mathematics Test Scores

The math test scores show a somewhat different pattern (Chart 6). The three minority groups' scores are similar and, as in reading, they are concentrated at the low end of the scale, with half or more achieving only a Level I rating. But, in contrast to the pattern on the reading scores, whites score only marginally better. Here the modal score for white students is a II, not a III, and the percent receiving a Level III score is not greatly different from the three minority groups.

On the mathematics test, Level I indicates proficiency up to basic arithmetic operations of addition and subtraction. Those at Level II have capability as well in multiplication and division. Level III scores indicate additional proficiency in percents and ratios. Algebra is not included in this test.

CHART 6

Percent of Incoming Delta College Students Scoring at Levels I, II, and III on the CGP Math Test, by Ethnic Group, Fall 88, N=2,373 (Does Not Include Those with SAT, ACT, etc. Scores)

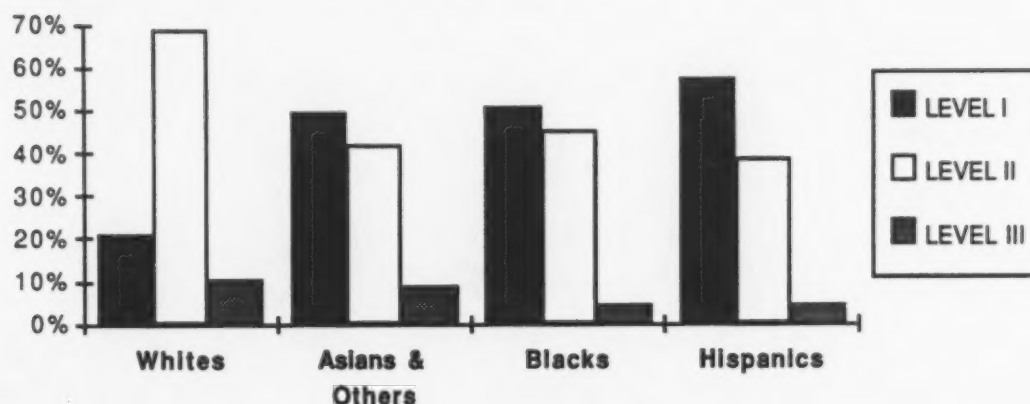
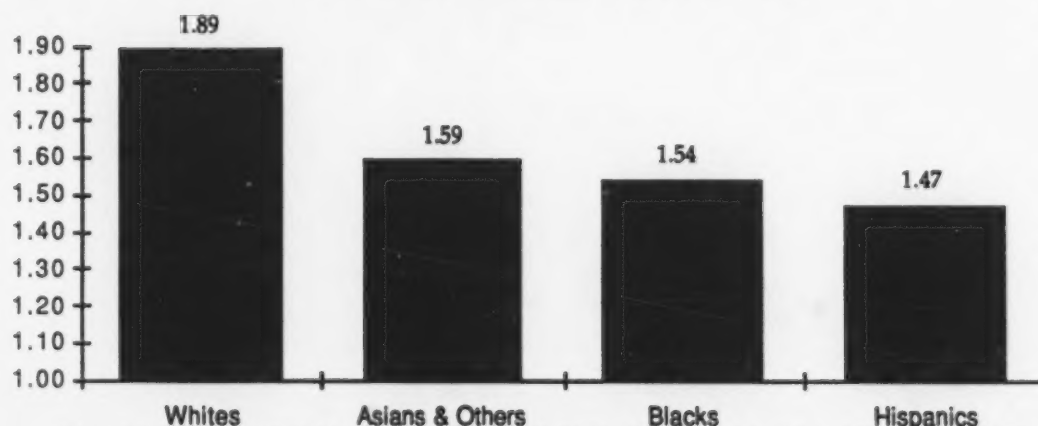


Chart 7 presents the average math test scores for the four groups, and shows the smaller differences among them than exist in reading.

CHART 7

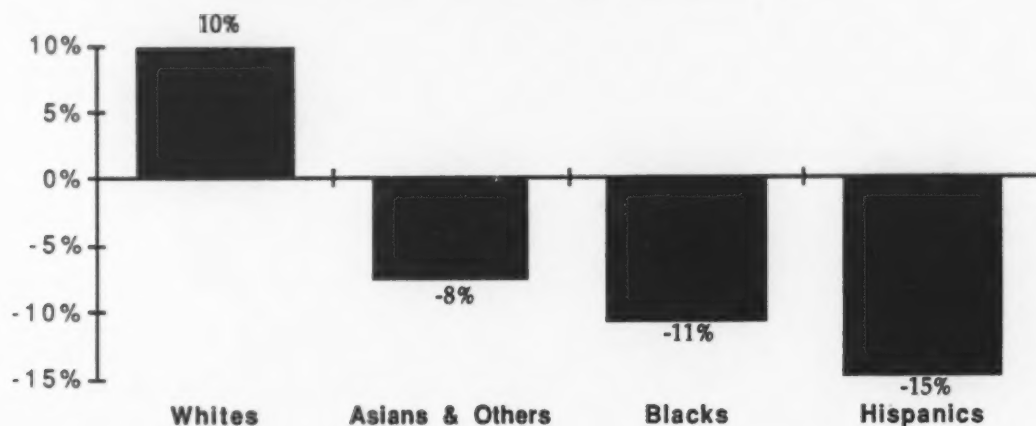
Mean Math Level* of Incoming Delta College Students on the CGP Math Test, Fall 88, N=2,373 (Does Not Include Those With Level III Scores From SAT, ACT, etc. Scores)



*Level I = Addition & Subtraction; Level II = Multiplication & Division; Level III = %'s & Ratios.

Chart 8 shows the percent that the different ethnic groups score above or below the college average math score.

CHART 8
Percent Ethnic Groups are Above or Below the College Average
Math Test Score (Incoming Students, Fall 88, N=2,373; Does Not
Include Those with Scores From SAT, ACT, etc.)



Overall, the test scores on mathematics proficiency show the same pattern of minority disadvantage as the reading scores. In the case of the math scores, however, although whites outscore the three minority groups, it is by a substantially smaller margin than in reading, and the average level of their scores indicates that many of them also will have difficulty coping with subjects requiring college level math skills.

C. Educational Goals

Both having a goal and the type of goal one chooses are key decisions which chart the direction of a person's educational course, and it is important to examine how these determining choices are influenced by ethnicity.

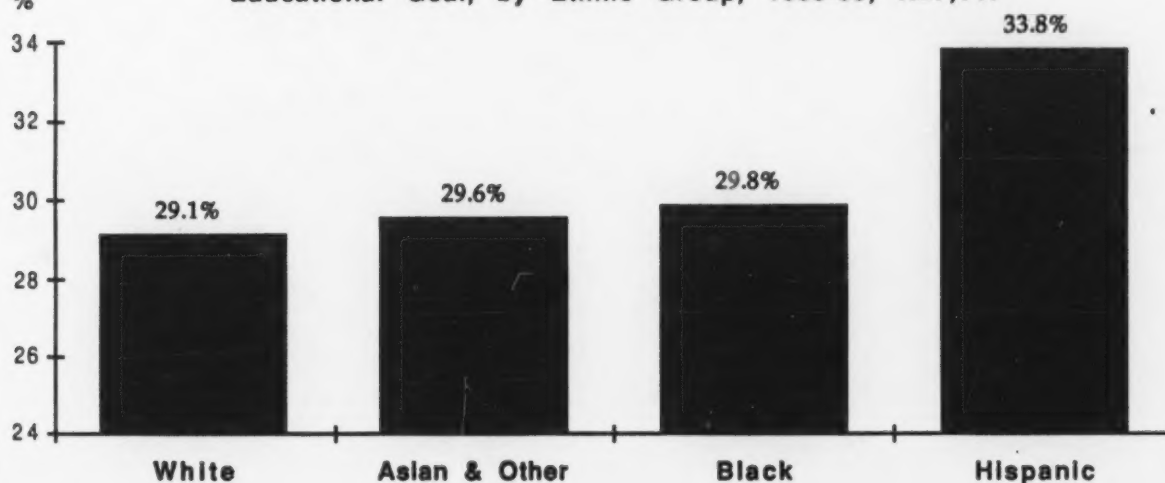
As part of their Application for Admission, students are asked to indicate their educational goal. There is a wide range of choices, including:

- Obtain a B.A. after earning an A.A.
- Obtain an A.A. without transfer
- Earn a certificate
- Prepare for a new career
- Formulate career interests
- Personal development
- Develop social skills
- Improve basic skills
- Complete credits for a GED
- Undecided

Being undecided about one's academic goal is a normal part of the uncertainty of youth, and we find this to be the case for about 30% of Delta's students. But it is not the same for all ethnic groups. Although the differences among the ethnic groups are small, Hispanic students are somewhat more likely to be unclear about their educational goal than the other three groups (Chart 9).

CHART 9

Percent of Delta College Students Who Are Undecided on Their Educational Goal, by Ethnic Group, 1988-89, N=7,147



When we focus more specifically on those whose goal is obtaining a degree or certificate, differences among the ethnic groups, though not as large as we might expect, are greater. Chart 10 presents these comparisons. Asian students have the largest proportion (58%) who say their goal is to achieve a degree or certificate. Black students and white students are in the middle (52% and 51%), with Hispanics having the smallest proportion (49%).

The extent to which the different ethnic groups are above or below the student body average in having a degree or certificate goal is shown in Chart 11. Again, the overall differences are not great, but the disparity between the Asian students, who are 11% above average, and the Hispanic students, who are about 7% below average, is not trivial.

In general, the striking fact about these differences on educational goals is that they are not larger than they are. One would expect that all the economic and cultural background factors that produce the broad pattern of differences among ethnic groups would also result in substantial disparities in the kinds of educational goals these students have. There are differences, and they fall along predictable lines, but they are not as marked as might be expected.

CHART 10

Percent of Delta College Students Having the Achievement of a Degree or Certificate as Their Educational Goal, by Ethnic Group, 1988-89, N=12,409

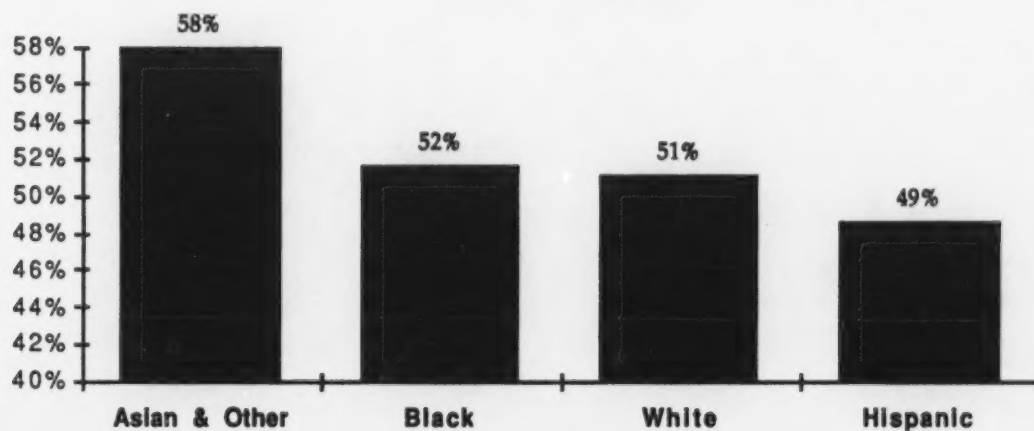
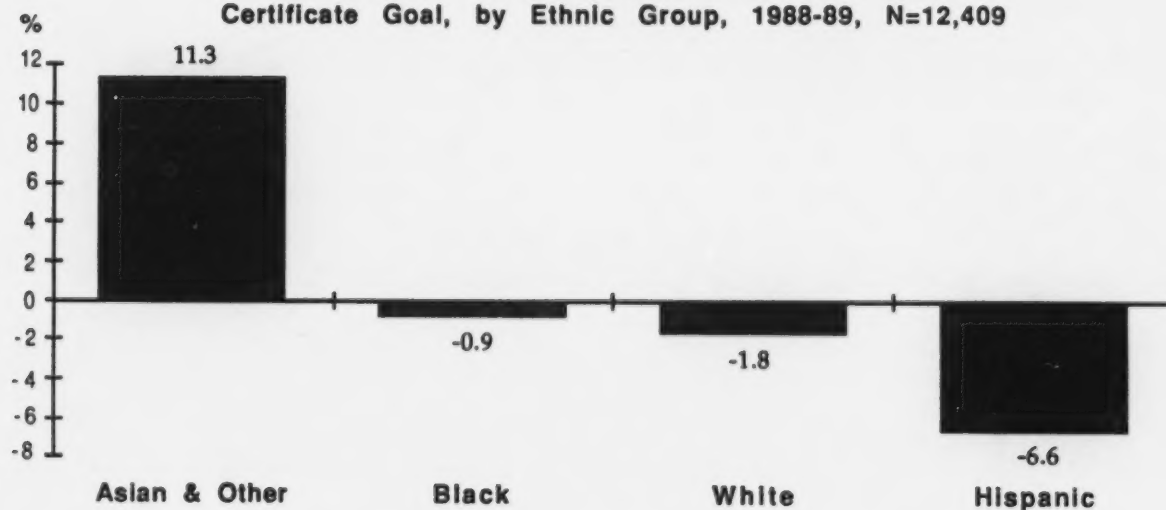


CHART 11

Percent Above or Below Average in Having a Degree or Certificate Goal, by Ethnic Group, 1988-89, N=12,409



D. Academic Majors

Moving to a still more concrete level--that of specific academic majors--we find larger differences among the ethnic groups, and a pattern with major educational and career implications.

Charts 12-15 present comparable displays for the four ethnic groups on how their choice of majors compares to the college average. In this analysis, similar majors were combined (e.g., Pre-Med, Pre-Law, and Pre-Dental; Radiological Technician, Psychiatric Technician, and Emergency Medical Technician; Physical Sciences, Biological Sciences, and Mathematics; etc), and only those with 150 or more students were included.

The bars in these charts indicate the percent by which the students in a particular ethnic group exceed or fall short of the college average level at which each of 29 academic majors is selected.

In Chart 12, for example, Bar #1 indicates that the percent of Asian students selecting Auto Mechanics as a major is about 150% greater than the percent in the student body as a whole who select it. Similarly, Bar #29 indicates that the number of Asian students selecting Communications as a major is about 50% below the average percent for the entire student body.

A comparison of Charts 12-15 indicates that there are educationally important differences in the patterns of majors selected by the different ethnic groups.

Asian students (Chart 12) are above average in the rate at which they select the scientific and technical majors that lead to certificates or four-year transfer in those fields, e.g., Engineering, the Pre-professional Programs, Sciences, Math, Computer Science, and Nursing. They have comparatively little interest in Agriculture, Administration of Justice, Fire Science, Physical Education, Home Economics, Human Services, and Hotel Management.

By contrast, black and Hispanic students (Charts 13 and 14) are above average in the selection of Administration of Justice, Hotel Management, Human Services, Social Sciences, and Physical Education. They are below the college average in the percent selecting majors in the Sciences, Mathematics, Computer Science, the Pre-professional Programs, and Engineering.

The pattern for white students (Chart 15) is somewhat in between--with above average selection of the Liberal Arts/Transfer major--but it is closer to the black/Hispanic pattern than to the Asian pattern, with below average choice of Computer Science, the Pre-professional Programs, the Sciences, Mathematics, and Engineering, and above average choice of Fire Science, Agriculture, Home Economics, Physical Education, and Hotel Management.

CHART 12

Over- or Under-Representation of Delta College ASIAN Students in Academic Majors,
1988-89, N=4,467

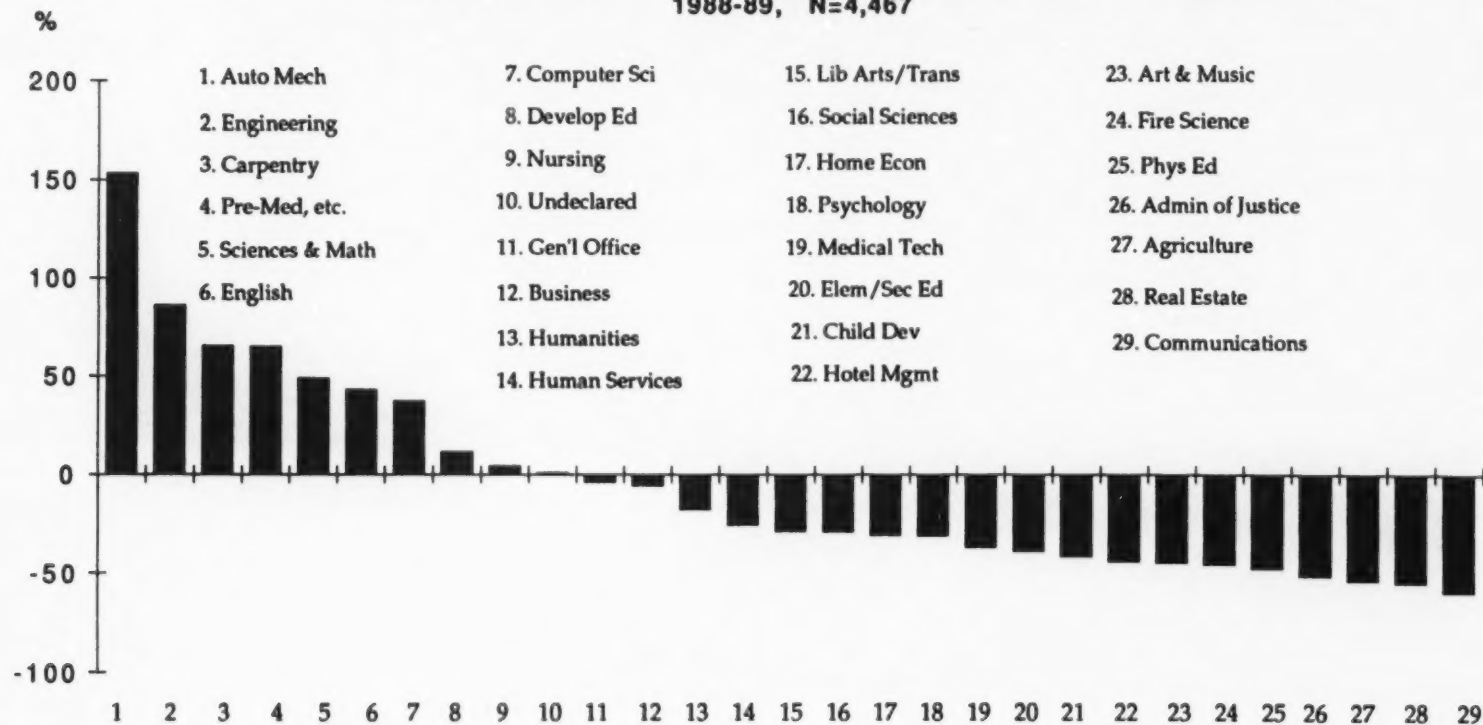


CHART 13

**Over- or Under-Representation of BLACK Delta College Students in Academic Majors,
1988-89, N=1,344**

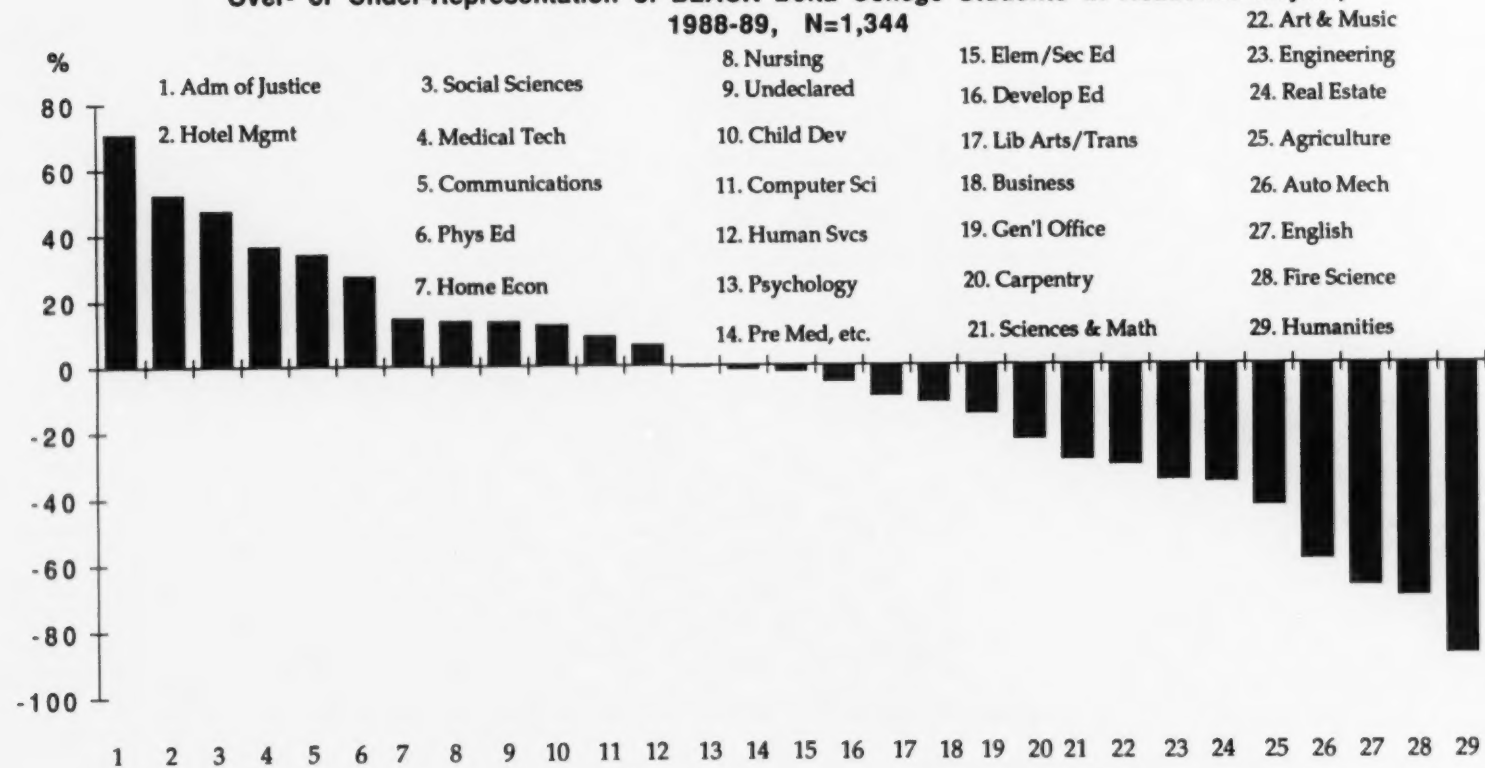


CHART 14

**Over- or Under-Representation of HISPANIC Delta College Students in Academic Majors,
1988-89, N=3,607**

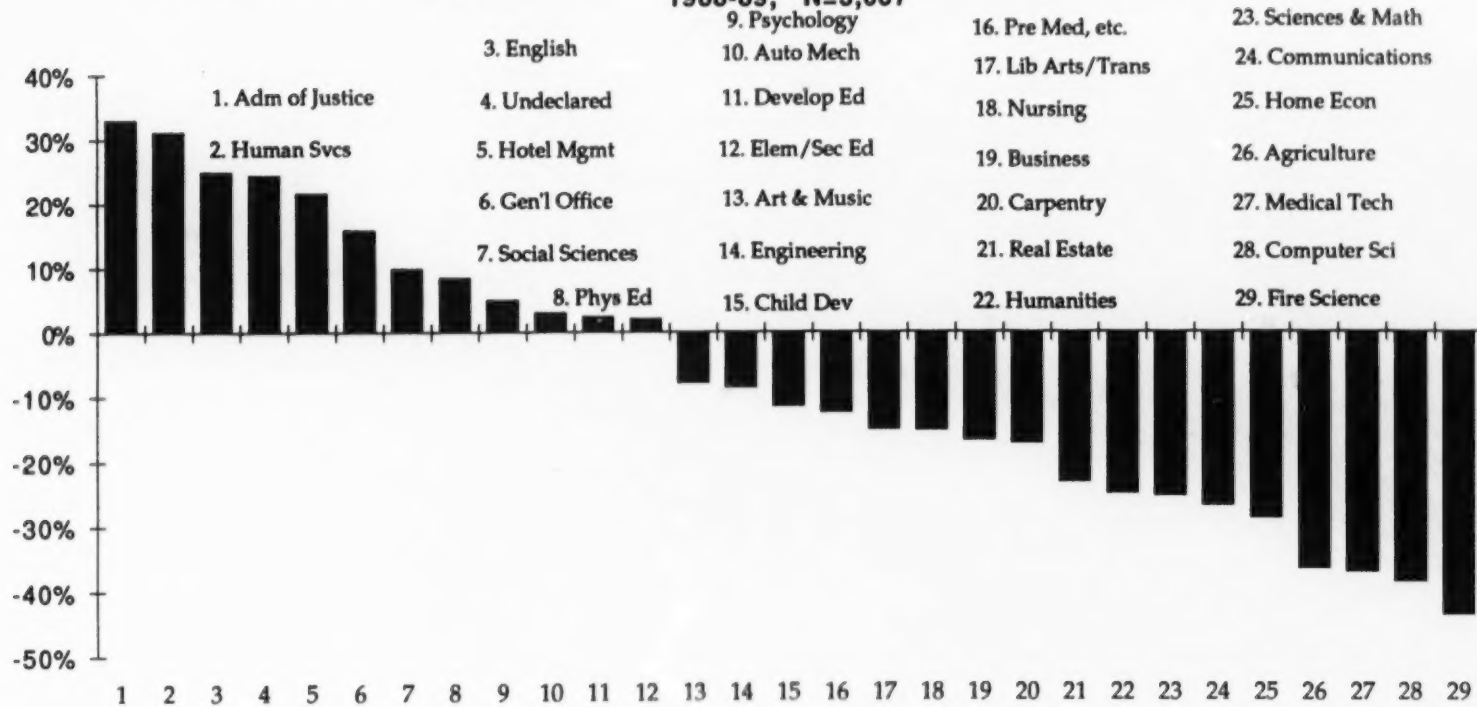
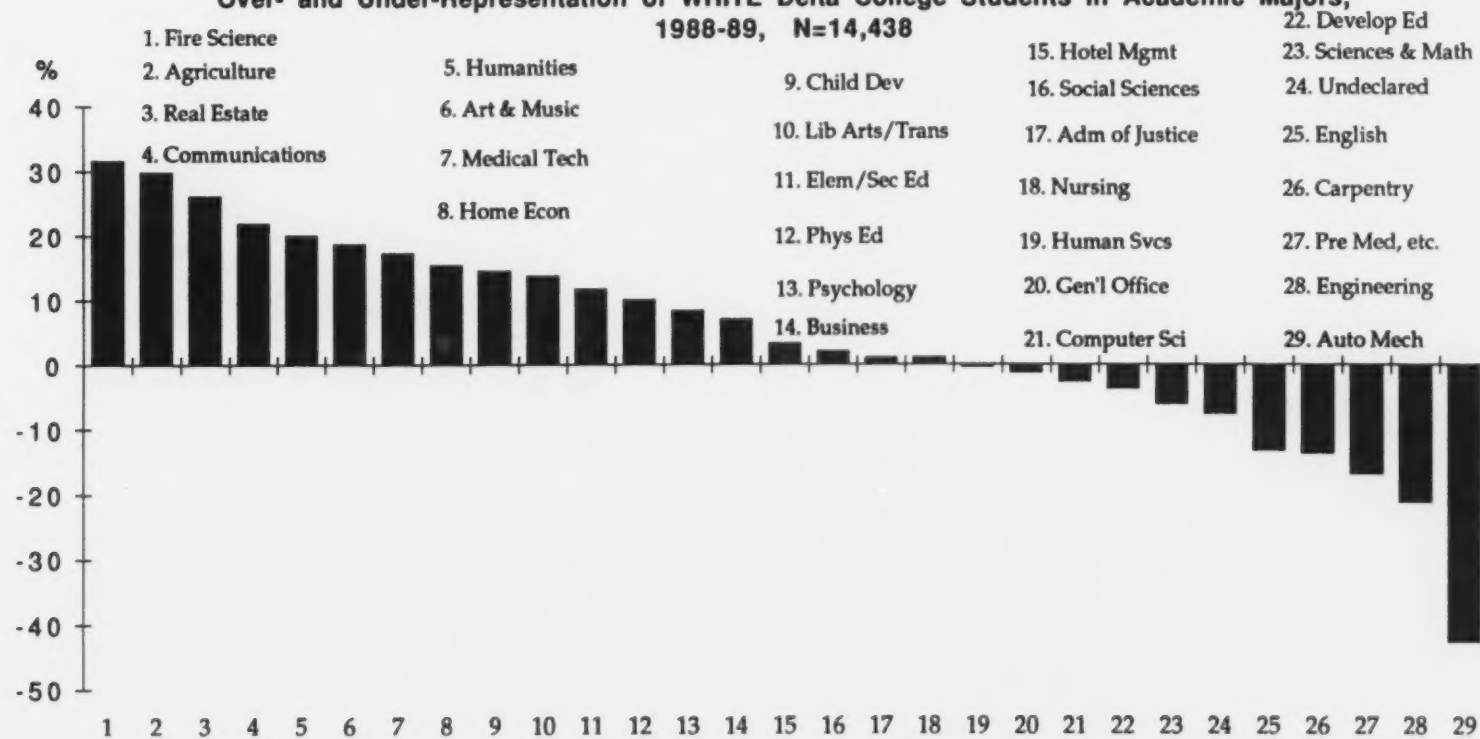


CHART15

Over- and Under-Representation of WHITE Delta College Students in Academic Majors,
1988-89, N=14,438



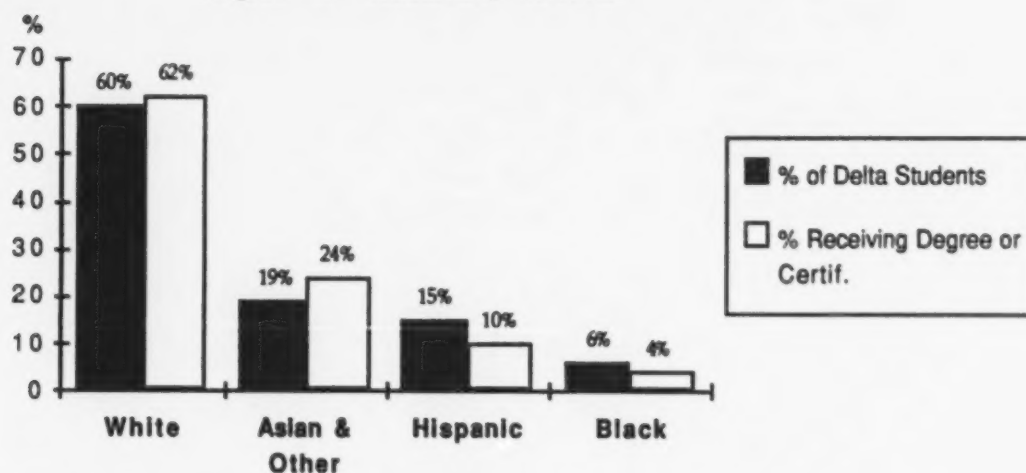
In sum, the College's curriculum offers a broad range of technical, pre-transfer, and occupational offerings, but the extent to which these are selected is not the same for students from the four major ethnic groups. Asians tend to concentrate in the scientific and technical areas, and show less interest in the social sciences and human service occupations. The reverse is true for blacks and Hispanics. White students are above average in selecting the Liberal Arts/Transfer major, reflecting a greater orientation to obtaining a baccalaureate degree, but otherwise their choice of majors is closer to the social service pattern of black and Hispanic students than to the technical and scientific pattern of Asian students.

E. Degrees and Certificates

Moving to the end of the educational process, the receipt of degrees and certificates is also not independent of ethnicity.

Chart 16 compares the ethnic distribution of all Delta College students with those who received a degree or certificate in 1988-89. As with the earlier comparison between Delta students and the local population (Chart 1), the general appearance of a fairly close match between the absolute percentages masks instances of fairly large proportional over- and under-representation.

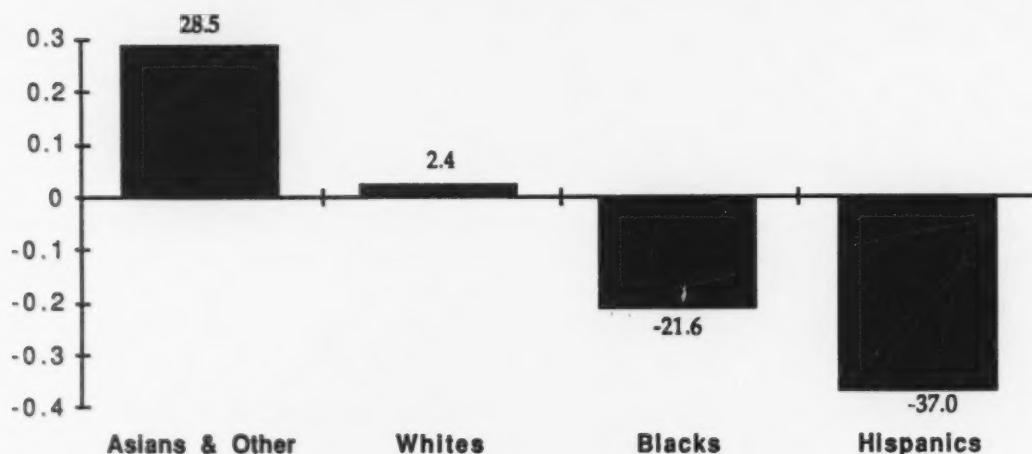
CHART 16
Ethnic Distribution of All Delta Students and Those Receiving a Degree or Certificate, 1988-89



The data in Chart 17 indicate the percent that each ethnic group is over- or under-represented (relative to its percent of the total student population) in the receipt of degrees and certificates. The same pattern that we have seen

throughout most of the comparisons holds here as well: Asian students receive degrees and certificates substantially in excess of their numbers in the student population; Hispanics are substantially under-represented; and white students and black students fall in between.

CHART 17
Over- and Under-Representation in the Completion of Degrees
and Certificates, by Ethnic Group, 1988-89, N=1,155



F. Goals, Degrees, and the Question of Persistence

It is extraordinarily difficult to establish what the proper completion or graduation rate for community college students should be, and a great deal has been written recently on this increasingly controversial question.⁵

The difficulty derives from both the multiple missions community colleges have, and the different populations they serve. A large proportion of community college students are not seeking an occupational certificate or an A.A. degree, nor do they intend to pursue a baccalaureate education.

Moreover, since community colleges are typically open admission institutions that serve a high proportion of economically and educationally disadvantaged students, the 50% persistence-to-graduation rate that on average is found in four-year institutions is surely too high a standard. But what should a reasonable rate be?

The answer to this question lies beyond the scope of this report, but three important conclusions emerge from the data we have analyzed on Delta:

⁵See, for example, F. L. Pincus and E. Archer, *Bridges to Opportunity*, Academy for Educational Development and The College Board, New York: 1989.

1. The percent of *all* Delta College students who ever receive a degree or certificate is very small--probably on the order of 5% to 10%, depending on how the calculation is made.
2. Even when we limit the question to those students who say their educational goal is to get a degree or certificate, the proportion who do so, while much larger, is still probably less than 35%. Establishing the precise number will require a careful longitudinal study that follows a large sample of students for several years. Only cross sectional estimates are possible with current data.
3. Whatever the precise rates turn out to be, it is clear from the data we do have at this time that, as in the other phases of the educational process we have examined, obtaining degrees and certificates is tied to ethnicity.

Table 1 compares the percent of students in each ethnic group whose educational goal is to get a degree or certificate with the percent of that number who actually received a degree or certificate in 1988-89.

This comparison requires a word of explanation. It is *not* a comparison of those who got degrees or certificates in 1988-89 with students in some earlier period who said that was their educational goal. As noted above, that type of comparison will require a major longitudinal study. Rather, Table 1 simply calculates, for a single point in time (1988-89) the percent that those who got degrees or certificates are of all those who currently say that is their goal.

This comparison is clearly a much less precise indicator of persistence than true longitudinal data would provide. But until we have those data, the comparisons in Table 1 allow us to make some tentative estimates on this important question.

For example, looking at Column V, we see that 52.0% of all students in 1988-89 declared that their goal is to get a degree or certificate (Row D). We further see that, of *that* number, 9.3% (Row E) actually received a degree or certificate in 1988-89.

The question we must ask is, what percent of all those whose goal is to get a degree or certificate can reasonably be expected to graduate in a single year? Data for 1980-89 indicate that the average time-to-graduation for those getting an A.A. degree is more than six semesters. For those getting a certificate, it is probably less.

If, for the purposes of this preliminary estimate, we assume that the average time to degree or certificate is three years, then we might expect about a third of all students who have a degree/certificate goal to actually graduate in any one year. The actual figure, for 1988-89, is 9.3%, suggesting that the

TABLE 1

Percent of Delta College Students Pursuing Different Goals,
and Receiving Degree or Certificates, by Ethnic Group, 1988-89

	ETHNIC GROUP				
	I Asian & Other (N=4,467)	II White (N=14,438)	III Black (N=1,344)	IV Hispanic (N=3,607)	V All Students (N=23,856)
A. Educational Goal:					
B. BA/BS	32.8	29.2	27.6	25.9	29.3
C. 2 Yr AA or Certificate	25.1	21.9	24.0	22.7	22.7
D. Sum (BA + AA/Certificate)	57.9	51.1	51.6	48.6	52.0
E. Percent of the Number with a Degree Goal that Received a Degree or Certificate in 88-89	10.8	9.7	7.4	6.3	9.3

majority of students whose educational goal is to obtain a degree or certificate apparently do not, for whatever reasons, achieve it.

Regardless of how accurate this estimate turns out to be when we are able to compare it with better longitudinal data, we can conclude on the basis of the data now in hand that persistence, like the other facets of the educational process, is heavily influenced by ethnicity.

Chart 18 (and Table I) show that there are substantial differences among the ethnic groups in the percent of those with a degree/certificate goal who actually received a degree or certificate in 1988-89. The pattern is the same one we have seen in most of the previous comparisons: the percent of Asian students who receive degrees and certificates is substantially larger than their proportion of the students who have degree/certificate goals. The opposite is true for Hispanic students, with white students and black students falling in between.

CHART 18
Percent of Delta College Students with a Degree Goal that
Received a Degree or Certificate in 1988-89, by Ethnic Group
(N=12,409)

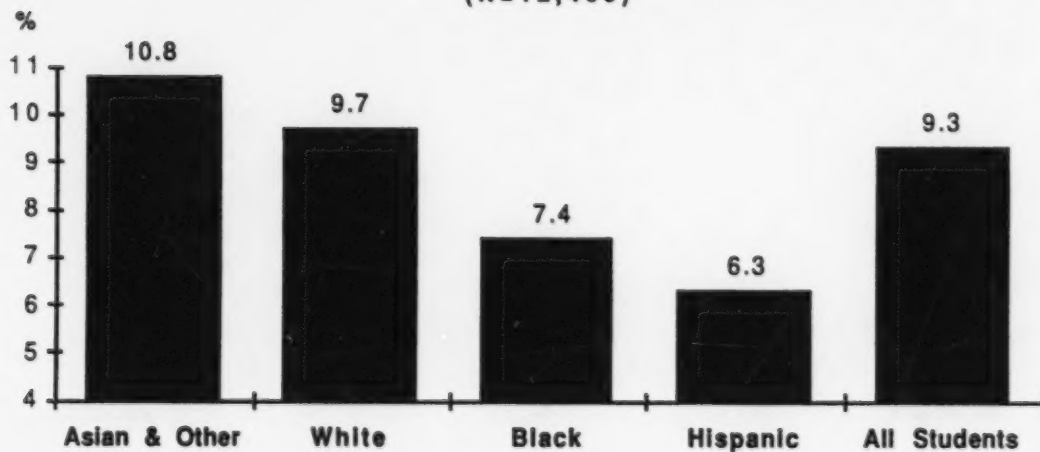
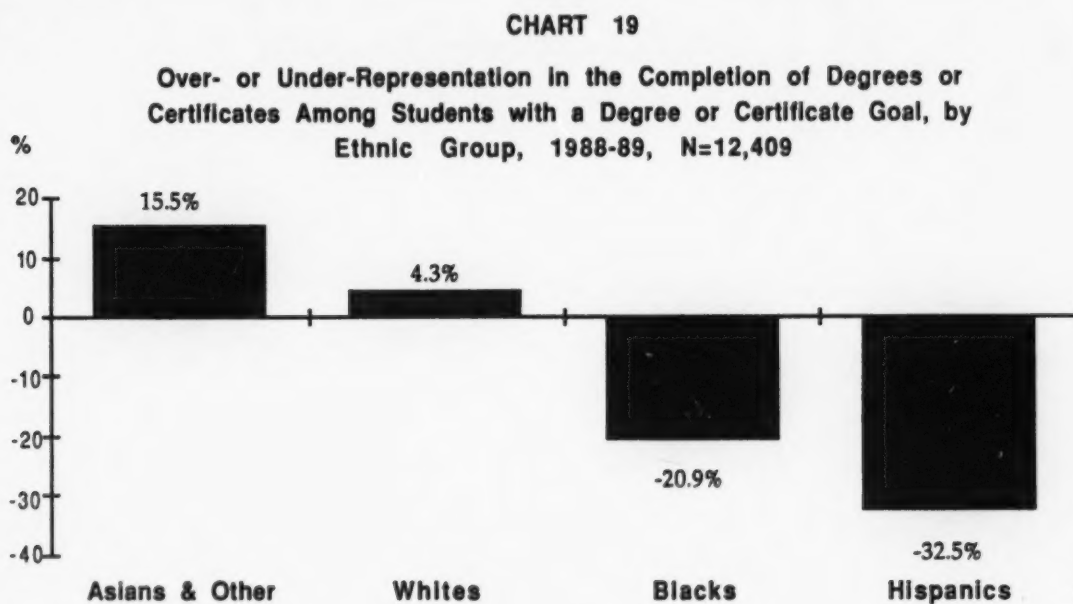


Chart 19 presents the same data in the now familiar over- under-representation format. Asian students are above average in the percent with a degree/certificate goal who actually receive one. Hispanic students are substantially below average, and white students and black students fall in between.



III THE IMPLICATIONS OF FUTURE GROWTH

California will be experiencing major population growth during the coming decades, and this will translate into major enrollment increases at all educational levels. By 2005, the community colleges are projected to see enrollment increases of 41%, and the preliminary estimate for Delta College is an astonishing 62%. This will take Delta from its present *total annual* enrollment of 23,878 to 38,701. (Chart 20.)

But there is more in this future population landscape than larger numbers. The overall increase in population will carry with it a transformation of the ethnic composition of California's population. In San Joaquin County, where whites presently outnumber all other minority groups combined by a ratio of more than two-to-one, minorities will predominate by 2005. (Chart 21.)

This results, of course, from the fact the three major ethnic groups will be increasing at a much greater rate than whites.

CHART 20
Projected Total Annual Enrollments at Delta College, 1988-89
to 2005

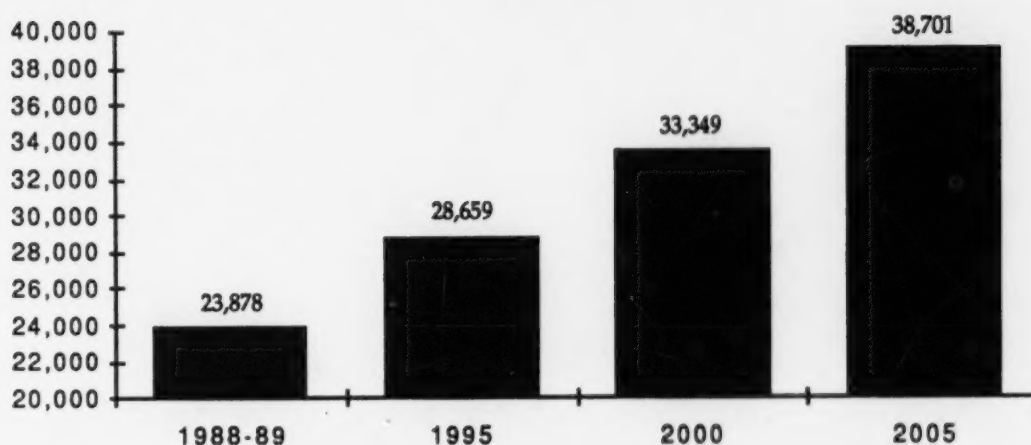
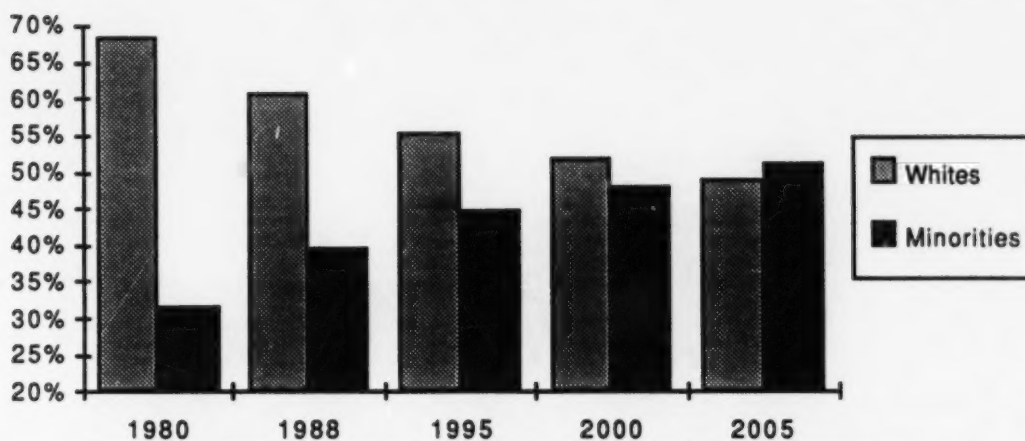


CHART 21
Actual and Projected Ethnic Composition of San Joaquin County,
1980-2005



Sources: 1980 Census, and Center for Continuing Study of the California Economy.

This same transformation will occur in Delta's student population. The number of white students will increase by no less than 34%, but this will be dwarfed by increases of 66% in black students, 96% in Hispanic students, and 127% in Asian students. (Chart 22.)

CHART 22
Percent Increase of Delta College Ethnic Group Students From
Their 1988 Levels

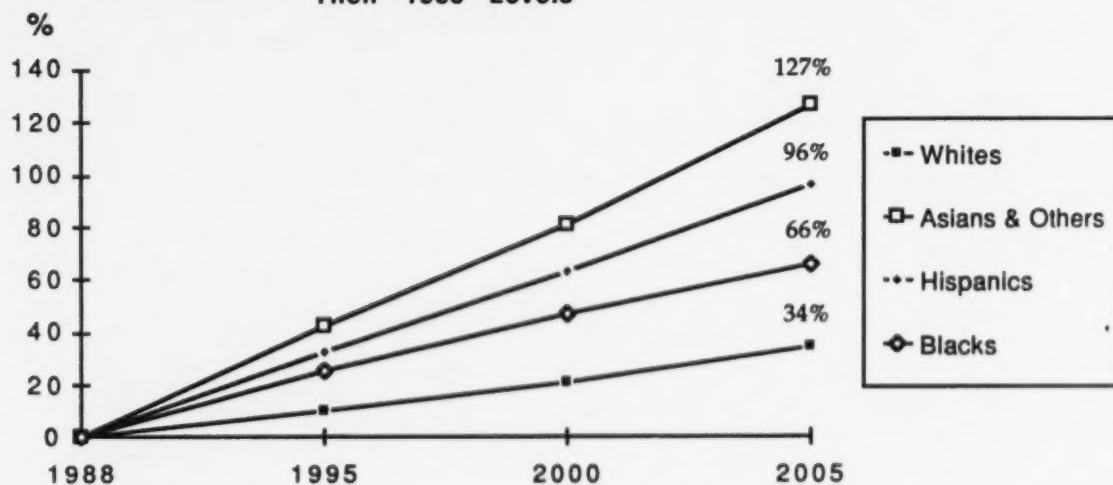
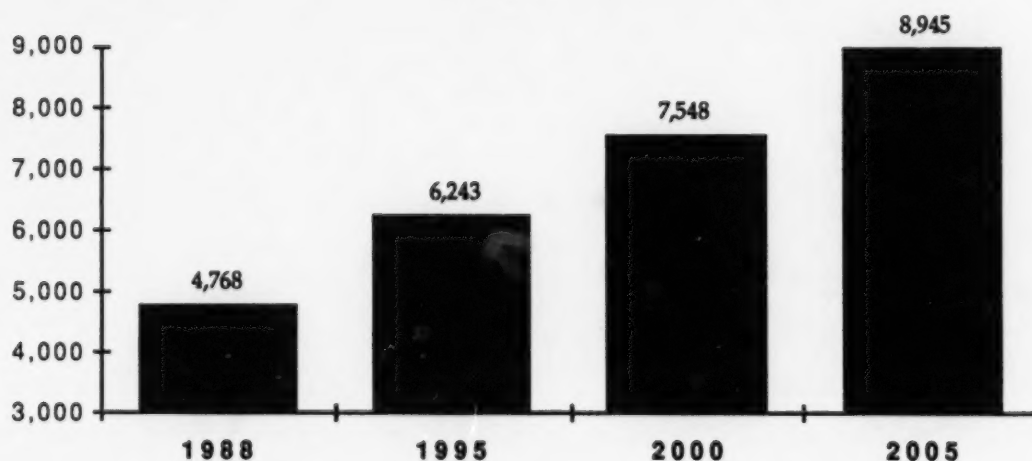


CHART 23
Projection of the Number of Black and Hispanic Students at Delta
College, 1988-2005



The implication for the present discussion is that an increasingly large number and proportion of Delta's students will be coming from educationally disadvantaged and ESL backgrounds.

As we have seen from the ethnic group comparisons on representation, proficiency in the basic skills, choice of educational goals and majors, and achievement of degrees, the two groups in greatest need are blacks and Hispanics, and their numbers will nearly double by 2005. (Chart 23.)

IV CONCLUSIONS AND POLICY IMPLICATIONS

Minority students do not participate equally in the educational process.

From representation in the student body to the receipt of degrees, there are major differences among ethnic groups.

The pattern of differences is not the simple historical contrast of white dominance over minority disadvantage. Asian students, despite their scoring lower on reading and math proficiency tests than white students, have moved to the first position in almost all other phases of the educational process at Delta College:

- Asian students are substantially *over*-represented in the student body, relative to their proportion of the local population. Simply stated, this means that a larger proportion of the area's Asian population is pursuing postsecondary opportunities at Delta than any of the other ethnic groups, including whites.

- They have the highest percent who are seeking a degree or certificate.

- They have the highest percent majoring in the scientific and technical fields that lead to degrees and certificates.

- They receive degrees and certificates substantially in excess of their numbers in the student population.

At the other extreme, Hispanic students are the least represented and the most educationally disadvantaged:

- Hispanic students are substantially *under*-represented in the student body in proportion to their numbers in the local population.

- Their low entry-level proficiency in reading and math makes mastery of college work extremely difficult.

- They have the highest percent who are undecided about their educational goal, and the lowest percent whose goal is to obtain a degree or certificate.

- They have a low percent majoring in the scientific and technical fields.

-They have the lowest percent who actually receive a degree or certificate.

On most dimensions, black students and white students fall in between these extremes.

Given Delta's commitment to making equal educational opportunity a reality, and given the increase in minority students that sweeping demographic change is bringing to the San Joaquin region, these findings underscore the challenges the College faces. These are not problems that lie in the distant future and can be left for others to worry about. The data we have analyzed make compellingly clear that these challenges are here now and will expand progressively in the coming decade.

The findings from this study signal several strategic policy implications:

1. To achieve the goal of having Delta's student body be ethnically representative of the area's population, the College will have to increase its efforts to attract Hispanic students, who are now under-represented by 60%.
2. However, we must realize that whatever success is achieved in improving representation will carry with it the need for additional efforts in remediation. The data we have analyzed show that a large proportion of all minority students, including Asians, arrive at the College seriously deficient in the basic language and computation skills necessary for successful college work. As the numbers of these disadvantaged students increase, so will the need for remediation resources and programs.
3. The reports on what is happening in the local high schools do not add an encouraging element to the overall situation. In the areas from which Delta draws the largest proportion of its students, drop out rates are high and may be on the increase. Test scores are among the lowest in the state. This means that a large proportion of the minority students attending the college will continue to be under-prepared, and this will have to be regarded as a fact of life.

Given the major demographic changes that are unfolding, the community colleges may well become the key interface between the rising proportion of disadvantaged students and the state's commitment to provide real access to postsecondary education. We will not be able to wait for high school reform.

All this underscores the ascendant importance of the whole Matriculation effort. Essential to making the open access offer of college education a reality for the increasing number of disadvantaged minority students is a full-scale panoply of effective student guidance and support services from assessment and diagnosis, through

counselling and financial aid, to assistance and remediation in the basic skills.

The coordinated array of enabling and compensatory services that comprise the Matriculation effort is not only essential to initial access, but is key to reducing the large gap--large for all students but larger for blacks and Hispanics--between the number who set out to achieve a certificate or degree and the number who succeed in doing so.

5. Finally, although the direct pedagogical tasks the College faces in making equal educational opportunity a reality for its minority students are formidable enough, the crucial dimension of aspirations must also be a concern. The data we have analyzed suggest that many minority students do not view the more challenging technical fields and careers as realistic options. This may, indeed, be an accurate self-assessment given their academic preparation. But along with basic assistance and effective remediation, equalizing ambitions and aspirations is essential if self-tracking is to be eliminated.